

Analytical Framework for Analysing Experiences from Case Studies of ABS in Africa

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Abstract

In this report we describe the methodologies we used to bring forth insight regarding success factors for establishing and implementing appropriate ABS legislation in African countries. We point out some empirical limitations as to what such studies may cover, and describe some of the variety of cases that we deem appropriate. We assume that there may be important lessons to learn from picking cases from a variety of sectors. We are therefore more concerned with drawing lessons from various sectors than with regional representation. The questionnaire we developed includes and highlights factors central to describing will and ability to implement: in terms of institutional capacity, and relationship between science and policy, in addition to the contractual environment presented by external actors that may act as drivers or barriers. By way of evaluating the 'goal achievement/ degree of successful implementation', we base this partly on stakeholders' own perceptions and in addition we will include our own standards for measuring success. These standards are tied to the three-fold objectives of the CBD: conservation, sustainable use and equitable sharing.

Key Words:

biodiversity, CBS, access and benefit sharing, ABS, legislation, institutions, governance

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1 Introduction, audience and aims¹

The case studies of African ABS experiences in terms of legislation and bioprospecting deals are aimed at generating knowledge that is helpful to African countries in the international ABS negotiations and in domestic implementation. Thus, the studies will seek to uncover specific and general needs as well as provide insight regarding success factors for establishing and implementing appropriate ABS legislation. Moreover, the case studies provide insight regarding successful institutional designs and effective capacity building for handling ABS issues. In this report we describe our methodologies used to bring forth such insights, point out some empirical limitations as to what such studies may cover, and describe some of the varieties of cases that we deem appropriate. But first, a few more words on the expected target group for results from the project and about our aims for the studies.

Our results are primarily aimed at delegations to the ABS negotiations, which include politicians and public servants, researchers and experts, in addition to a range of primary and secondary sector interests, including agriculture, industries and businesses where emerging policies on genetic resources are relevant. Included are also NGOs and civil society groups engaged in issues relating to ABS questions at various levels, from the local to the international. While we aim to disseminate our results and discussion points to all ABS negotiation parties, the project has a specific aim relating to increasing capacity on the issue area in African countries, through the larger GTZ ABS Capacity Development Initiative for Africa.

The overall goal is to increase knowledge and insights pertaining to the ABS issue with a view to enhancing the contractual environment among parties and contribute to finding solutions that aid the difficult international negotiations and implementation after the negotiation process. Our aspiration is that additional insight may increase the likelihood of reaching compromises among the parties. Based on these results, we hope to inspire proposals and formulations that take into account the various needs and interests in a way that will allow progress even if a stalemate situation in the Ad Hoc Working Group on ABS persists, as well as contribute to the implementation phase.

To reach such proposals we need to produce insight regarding success factors in establishing and implementing appropriate ABS legislation at domestic levels. The case studies will provide insight as to successful institutional designs and effective capacity building for handling ABS issues.

International negotiations take place among sovereign states and in arenas where authority must be based on confidence and agreement in order to be legitimate. It is thus necessary to find compromises that consider each position, where the distribution of costs and benefits are seen as equal and legitimate among parties, and with a particular view to contributing to the implementation of the legally binding obligations of the CBD. Such a basis is necessary (albeit hardly sufficient) for the CBD parties to achieve improved management of and equitable transactions with genetic resour-

ces and the knowledge accompanying biological material. The parties may then be better equipped to implement the three overall obligations under the CBD: conservation of biodiversity, sustainable use of its components and equitable sharing of benefits from use of genetic resources.

2 Methodology and analytical approach

First, we need to consider other efforts to provide knowledge about the ABS situation around the world. Hence, it is essential to start by gaining a comprehensive understanding of the results that are already available and to build further on insights that we deem important for moving the negotiations forward and for improving implementation. For this purpose we will perform a survey of relevant articles and data material.² This includes insights about and overviews of ABS legislation (Elliott, 2008; Tvedt, 2006; Tvedt & Young, 2007; Young & Tvedt, 2009; Nnadozie et al., 2003; Lewis-Lettington et al., 2006; Glowka, 1998), more general literature on ABS issues, bioprospecting and biopiracy (Mushita & Thompson, 2007; Philips & Onwuekwe, 2008; Pisupati, 2008; Tobin et al., 2008; Sampath, 2005; Henne et al., 2003; ten Kate & Laird, 1999), and case studies on various aspects of implementing ABS (Lewis-Lettington & Mwanyiki, 2006; McGown, 2006; Wynberg, 2004a; Tibe, 2008).

The next step is to develop an analytical framework suited to determining relevant lessons from ABS experiences. In line with the project description, we will be studying a number of selected cases from African countries focusing on the establishment and implementation of ABS regulations, in particular embedded cases of bioprospecting. Our methodological approach to these cases is to draw on document analysis as well as interviews with stakeholders.

2.1 Case selection with explanatory factors in mind

There are a number of choices to consider regarding case selection. The first is whether to do a large number of extensive case studies with a potential for a higher degree of statistical generalisation, or a few intensive studies which provide more insight about the specific case. We have chosen the latter strategy. Although it is less suited for statistical generalisation, we explore the question of whether we may draw analytical generalisation from these in-depth case studies. A second choice concerns whether to apply a traditional approach to implementation studies, with a combination of top-down and bottom-up models (and with assumptions about what factors to study up front), or to conduct the studies in a more participatory manner. The former is believed to be better suited for case studies where we do not have unlimited time to follow the research object. A strategic deliberation is linked to the choice of case countries with a high degree of access to data material; we have no guarantee that this corresponds with cases with a good rate of relevant lessons to learn. We will discuss our choices with a view to their relevance as success stories, deviant cases or role models.

In effect, the countries and accompanying cases are selected primarily with due regard to significance for expected insights, and secondarily according to availability of data material. For the former purpose we decided to start out with and emphasise bioprospecting cases that have been reported as 'successful', while remaining mindful of who makes the evaluation of a case being successful or not. With regard to country

selection, we will pick case countries that have come relatively far with a view to enacting ABS legislation.

Moreover, we assume that there may be important lessons to learn from picking cases from a variety of sectors. We are therefore more concerned with drawing lessons from various sectors than with regional representation. A central question is whether there is difference in the degree of goal achievement between various sectors (e.g. genetic resources for agriculture, medicine, and aquaculture)³ and what factors may account for such variation. As there may be a very long list of factors accounting for failure, we choose to draw attention to factors that the various stakeholders themselves point to as important ingredients for success.

With this purpose in mind, we will go through a number of interviews with central decision-makers to check their opinions about strengths and weaknesses of the legal framework on ABS, how the framework ended up as it did (internal/external driving forces), how they view the scope for implementation/goal achievement, and what factors they see as conducive or as barriers to such developments. Prior to this exploration we discuss our own ideas of the factors that may be most important to examine and pursue in the interviews. This step involves an identification of the most important explanatory factors, a discussion of why we believe they are important, and finally checking this through interviews and written sources of case documentation.

Conventional political science theory distinguishes between broad power-based explanations and norm-based explanations for the results of decision-making processes and ensuing implementation (see Hansenclever et al., 1996). Against this backdrop, one central question may be whether respondents believe that knowledge and technological development or basic power and interest structures are most decisive for the further evolution of ABS legislation and related policies. This approach has only been pursued in a few cases in earlier ABS case studies, as most such cases are aimed at the participation of NGOs, external and domestic industry actors and local people (Wynberg et al., 2009; Vermeulen, 2008; Wynberg, 2004b; Mahop, 2004). As central politicians and public servants are crucial recipient actors for our project results, it is of great importance that they are invited to present their views on the cases themselves, along with other stakeholders. Not least, this focus will allow for a more in-depth scrutiny of the various turf wars and conflicts of interest between sector ministries, as well as the division of labour between them in terms of capacity, competence, coordination and commitment. In other words, this approach would combine an examination of will and ability, while also combining top-down with bottom-up studies.⁴

Theoretically, this approach broadly builds on Adil Najam (1995) and Jänicke and Weidner's (1997) contributions to analyse implementation of environmental policies. These contributions are acknowledged as examining significant factors for explaining goal achievement (or lack of such) in developed countries, and it is interesting to perform similar case studies in developing countries, as only a few such case studies have been done before (Rosendal, 2000; Andersen, 2008). This will be accompanied by more specific insights. Mugabe (2000) points to the need for capacity

building in developing countries to include expertise in environmental law and in taxonomy. More specifically, there is a need to establish institutions that are able to monitor permits to prospect genetic material as well as to develop taxonomic studies to increase knowledge about the country's biodiversity. Another study points to the specific challenges related to participation in developing countries, where issues of control and ownership are less formalised, local people are often expected to contribute more to conservation, and external stakeholders tend to have greater influence on decisions, compared to developed countries (Taconi, 2000:85)

With a view to such asymmetrical power relations in global environmental governance, we need to include effects from external factors, both in terms of capacity building, as knowledge brokers and with a view to legitimacy. Here we will draw on Haas, Keohane and Levy's work in *Institutions for the Earth* (1993) in order to explore the relationship between domestic and external actors in implementation of multilateral environmental agreements. A questionnaire will be developed in which we examine attitudes among stakeholders concerning ABS and where we also seek to map variation in opinions with a view to IPR issues. This will include and highlight factors central to describing will and ability to implement, in terms of concern and institutional and economic capacity, in addition to the contractual environment presented by external actors that may act as drivers or barriers.

In our interviews we asked key actors to pinpoint specific barriers to ABS policy and legislation. Institutional factors may involve coordination between various sector ministries and other interests, and the domestic distribution of authority between central and local-level providers of genetic resources. Moreover, we ask whether the actors see established institutions as being able to monitor permits to prospect genetic material as well as to develop taxonomic studies and inventories to increase knowledge about the country's biodiversity. This latter aspect relates to how science and policy interact in the decision-making process on ABS. Finally, we investigate perceptions concerning the relationship between domestic and external actors in establishing bioprospecting deals: Given the current lack in user-country legislative measures, what strategies are best suited for goal achievement? We also ask about views on the balance between strong ABS regulations and strengthened intellectual property rights (IPR) legislation in terms of promoting foreign investments in the country.

Against the backdrop of the last section, it becomes clear that we will also be greatly dependent on choosing cases where we have some degree of certainty that relevant data material is available. Our research is conducted in collaboration with African research institutions, which we see as a precondition for gaining access to sources and material, as well as improving the understanding and interpretation of the data material. Hence, our selection of case countries is also aided by a good network of relevant and reliable researchers and experts in the countries themselves.

In addition, we base our choices on extensive investigations and interviews with parties at relevant international meetings.

Based on these deliberations we propose to study:

- Forestry & pharmaceutical sector (varying degree of success): the case of *Prunus africana* in **Cameroon**
- Agricultural sector (medium degree of success): the case of *teff* in **Ethiopia**, including a follow-up study of user countries and actors relevant to the *teff* case
- Pharmaceutical sector & traditional knowledge (high degree of success): the case of *hoodia* or *maruline* in **Namibia** or **Botswana**
- Aquaculture sector (medium degree of success): the case of *tilapia* in **Ghana**⁵

2.2 Methodological problems and delimitations in measuring success

A recurring problem in this and similar case study approaches is that a significant explanatory factor is intuitive and obvious: Namely that lack of goal achievement for bioprospecting deals is likely to result largely from the lack of compatible ABS legislation and measures in user countries. Hence, we need to frame our approach and research question so that this default in current international and user-country legal frameworks is perceived as a given: Given the current lack in user-country legislative measures (Tvedt and Young, 2007), what strategies are best suited for goal achievement? This also opens up for more in-depth studies of national and local factors, exploring differences in interests and perceptions among sub-domestic groups and sectors.

We also need to address necessary delimitations in terms of our dependent variable, in other words the focus of our examination: The first delimitation concerns the division between international and domestic distributional effects. The benefit sharing part of ABS as a concept has connotations at both levels. Most studies and actors focus at the international level and effects on international distribution. However, we realise that proposals and formulations for the ABS negotiations which have direct consequences for domestic distribution, may affect overall problem solving in the negotiating forum. Such effects may be for better or worse and we must take this into consideration. Nonetheless, we need to draw the line somewhere and one implication of our delimitation is that we will leave out the issues of tenure and land rights (Mahop, 2004; Lightbourne, 2007).

A second aspect that needs comment in terms of delimitations is the very concept of genetic resources. The ABS debate is currently riddled with problems concerning where to draw the line between genetic and biological resources, coupled with the fear that common activities like import and export of biological material in bulk (e.g. trade in bananas for con-

sumption), will inadvertently come under the definition and scope of an ABS regime (Schei & Tvedt, 2010). Our take on this problem is to do a study on utilisation of genetic resources, as we assume that utilisation is a core element in deciding whether the resource in question can legally be considered a part of the ABS regime (Tvedt and Young, 2007). An additional and logical corollary of this examination is that it is not only the resources that must be considered; also (traditional) knowledge associated with its utilisation must be clarified. Hence, even though the biological material itself does not fit into the ABS box, ABS may still be relevant due to traditional knowledge (see e.g. Mahop, 2007).

Even after these delimitations we still need to grapple with the question of who is ultimately responsible for evaluating whether the goal achievement/implementation of ABS legislation in a specific bioprospecting deal is a success or a failure. Ideally, we would need to follow the results and impacts of such a deal over a prolonged period of time and conduct broad interviews and surveys with all possible and potential stakeholders to answer this. Most implementation studies stop at *outcomes* (i.e. enforcement of policies leading to behaviour change in target groups, e.g. through institutions and budgets established to reach policy goals,) rather than studying effects in terms of the full scope of socioeconomic and ecological *impacts* of policy decisions (see e.g. Hansenclever et al., 1996; Keohane & Levy, 1996). Our aim is to work towards including a more bottom-up approach and try to capture some of the local-level effects of bioprospecting deals. There will, however, be limitations regarding how well the analytical framework and our research efforts are able to encompass and consider all relevant stakeholders and balance their various opinions about results and achievements.

This implies that we need to establish a comprehensive way to evaluate the 'goal achievement/degree of successful implementation'. As mentioned, this can be based partly on stakeholders' own perceptions; but in addition we will include our own standards for measuring success. Our own standards are tied to the three-fold objectives of the CBD: conservation, sustainable use and equitable sharing. Here we will need to take into account particular issues such as traditional knowledge and use of a resource not necessarily being equivalent with its sustainable use. Moreover, we need to acknowledge the fact that African countries often put a different connotation on the notions of indigenous and local people compared to the mainstream approach in the CBD/ABS negotiations. We must also consider the balance between access and benefit sharing; some of the literature implies that current legislation is too complicated to reach both goals (Crouch et al., 2008), not to mention the added goals of conservation and sustainable use. Most, including some of the most authoritative sources of literature in this area, tend to be more concerned with benefit sharing than with the more long-term goal of conservation and sustainable use – or rather take for granted a positive correlation between the two (Wynberg et al., 2009). If ABS were to be more closely and explicitly linked to conservation, this might enhance the legitimacy of the ABS process.

A further aspect that we need to clarify is whether we primarily are to look at implementation of one specific bioprospecting deal, or of a specific set of ABS legislation in a country, or of the general ABS obligations inherent in the CBD (Bonn Guidelines). While it makes sense to study the domestic legislation and embedded bioprospecting cases, the type of lessons that we need to derive from our research may be better suited to our aims for the study if they speak to international situations, void of a central authority, rather than domestic legislators and constituencies only.

This links back to our initial project goals of identifying compromise solutions that may enhance the contractual environment between the negotiating parties to the ABS regime. We assume that such solutions may come in the form of package deals with something in it for all, and which can broaden the scope of what the parties view as *legitimate* as well as raising the stakes (*ambitiousness*) of what they can agree on. Some interfaces and issue linkages may be disruptive, and may hence necessitate a more comprehensive approach that takes this into account (Rosendal, 2001). Other package deals and issue linking may have an immediate potential to enhance synergies.

Notes

¹ Thanks to all members of the ABS team at the Fridtjof Nansen Institute for valuable comments to earlier stages of this report: Regine Andersen, Ole Kristian Fauchald, Peter Johan Schei, Morten Walløe Tvedt and Tone Winge. The responsibility rests with me.

² Most of current relevant literature addresses internal issues of distribution rather than international ones. We need to make a distinction and delimit our studies in this regard, while also bearing in mind that domestic distribution – not least associated with traditional knowledge – may also affect the international parties' will to accept.

³ We delimit the scope from the issue of human genetic resources.

⁴ A top-down approach will usually take the political decision, such as a convention text, as its point of departure for studying implementation, while a bottom-up approach will start at the level of affected actors, for instance at local levels, tracing how they perceive the implementation process and objectives.

⁵ We consider including the case of *GIFT tilapia* in **Ghana**. The case evokes conflicting issues between benefit sharing and environmental concerns, as reintroduction of farmed tilapia to the countries of origin in Africa might have adverse effects on wild populations. WorldFish and the FAO are now engaged in a project in Ghana, which aims to test eventual consequences of reintroduction in an organised manner.

Literature

- Andersen, Regine. 2008. *Governing Agrobiodiversity*. Ashgate.
- Crouch, Neil R. et al., 2008. South Africa's bioprospecting, access and benefit-sharing legislation: current realities, future complications, and a proposed alternative. *South African Journal of Science*, 104, September/October 2008.
- Elliott, Wendy S. (Ed.). 2008. *Access to Genetic Resources in Africa: Analyzing ABS Policy Development in Four African Countries*, UNEP.
- Glowka, Lyle. 1998. *A Guide to Designing Legal Frameworks to Determine Access to Genetic Resources*, Gland, Switzerland: IUCN.
- Haas, Peter M., Robert O. Keohane & Marc A. Levy (Eds). 1993. *Institutions for the Earth. Sources of Effective International Environmental Protection*. Cambridge, MA: MIT Press.
- Hansenclever, Andreas, Peter Mayer, & Volker Rittberger. 1996. Interests, Power, Knowledge: The Study of International Regimes. *Mershon International Studies Review*, 40: 177-228.
- Henne, Gudrun, et al., 2003. *Access and Benefit-Sharing (ABS): An Instrument for Poverty Alleviation. Proposals for an International ABS Regime*, Bonn, Germany: German Development Institute.
- Jänicke, Martin & Helmut Weidner (Eds). 1997. *National Environmental Policies. A Comparative Study of Capacity Building*. Berlin: Freie Universität Berlin.
- Keohane, Robert O. & Marc A. Levy (Eds). 1996. *Institutions for Environmental Aid. Pitfalls and Promise*. Cambridge, MA: MIT Press.
- Lewis-Lettington, Robert and Mwanyiki, S. (Eds.) 2006. *Case studies on access and benefit-sharing*, Rome, Italy: International Plant Genetic Resources Institute (IPGRI).
- Lewis-Lettington, Robert, et al., 2006. *Methodology for Developing Policies and Laws for Access to Genetic Resources and Benefit Sharing*, Rome, Italy: International Plant Genetic Resources Institute (IPGRI).
- Lightbourne, Muriel. 2007. Organization and Legal Regimes Governing Seed Markets and Farmers' Rights in Ethiopia. *Journal of African Law*, 51(2): 285-315.
- Mahop, Marcelin Tonye. 2004. Addressing the concerns of rural communities about access to plants and knowledge in a *sui generis* legislation in Cameroon. *J. Biosci*, 29: 431-444.
- Mahop, Marcelin Tonye. 2007. En route to biopiracy? Ethnobotanical research on anti diabetic medicinal plants in the Eastern Cape Province, South Africa. *African Journal of Biotechnology*, 6 (25): 2945-2952.
- McGown, Jay (edited and introduced by Beth Burrows). 2006. *Out of Africa: Mysteries of Access and Benefit Sharing*, Edmonds Institute and African Centre for Biosafety.
- Mugabe, John. 2000. Regulating bioprospecting in Africa: Towards national policy and legislative measures, in *Bioprospecting – from biodiversity in the South to medicines in the North*, by Hanne Svarstad and Shivcharn Dhillon (eds.).

- Mushita, Andrew & Carol B. Thompson. 2007. *Biopiracy of Biodiversity: global exchange as enclosure*, Asmara, Eritrea and Trenton, NJ, USA: Africa World Press.
- Najam, Adil. 1995. *Learning from the literature on implementation: A synthesis perspective*, Working paper WP-95-61. Laxenburg, Austria: International Institute of Applied Systems Analysis.
- Nnadozie, Kent, et al. 2003. *African Perspectives on Genetic Resources: A Handbook on Laws, Policies, and Institutions Governing Access and Benefit Sharing*, Washington D.C: Environmental Law Institute.
- Philips, Peter W.B. & Chica Onwuekwe. 2008. *Accessing and Sharing the Benefits of the Genomics Revolution*, Kluwer Academic Publishers Group.
- Pisupati, Balakrishna (Ed.) 2008. Special Issue on Access and Benefit Sharing. *Asian Biotechnology and Development Review*, 10(3).
- Rosendal, G.Kristin. 2000. *The Convention on Biological Diversity and Developing Countries*. Kluwer Academic Publication: London.
- Rosendal, G.K. 2001. Impacts of Overlapping International Regimes: The Case of Biodiversity. *Global Governance*. 7: 95-117.
- Sampath, Padmashree Gehl. 2005. *Regulating Bioprospecting: Institutions for Drug Research, Access and Benefit-Sharing*, Tokyo: United Nations University Press.
- Schei, Peter Johan & Morten Walløe Tvedt. 2010. 'Genetic Resources' in the CBD: *The Wording, the Past, the Present and the Future*. FNI Report 4/2010: Lysaker.
- Taconi, Luca. 2000. *Biodiversity and Ecological Economics. Participation, Values and Resources Management*. Earthscan: London.
- Tibe, O. et al. 2008. Potential for domestication and commercialization of *Hoodia* and *Opuntia* species in Botswana. *African Journal of Biotechnology*, 7 (9): 1199-1203.
- Tvedt, Morten Walløe. 2006. Elements for legislation in user countries to meet the fair and equitable benefit-sharing commitment. *Journal of World Intellectual Property*. 9(2): 189-212.
- Tvedt, Morten Walløe and Tomme Young. 2007. *Beyond Access: Exploring Implementation of the Fair and Equitable Sharing Commitment in the CBD*. Gland (Switzerland): IUCN.
- ten Kate, Kerry and Sarah A Laird. 1999. *The Commercial Use of Biodiversity: Access to Genetic Resources and Benefit-Sharing*, London, UK: Earthscan.
- Tobin, Brendan et al. 2008. *Certificates of Clarity or Confusion: The search for a practical, feasible and cost effective system for certifying compliance with PIC and MAT*, UNU-IAS Report.
- Vermeulen, Saskia. 2008. From life force to slimming aid: Exploring views on the commodification of traditional medicinal knowledge. *Applied Geography* 28: 224-235.
- Wynberg, Rachel, Doris Schroeder and Roger Chennells (Eds). 2009. *Indigenous peoples, consent and benefit-sharing. Lessons from the San-Hoodia case*. Springer.
- Wynberg, Rachel. 2004a. *Bioprospecting, Access and Benefit-Sharing in South Africa: Towards a Strategic Assessment*.

- Wynberg, Rachel. 2004b. Rhetoric, Realism and Benefit Sharing: Use of Traditional Knowledge of Hoodia Species in the Development of an Appetite Suppressant. *Journal of World Intellectual Property*, 7(6): 851-876.
- Young, Tomme and Morten Walløe Tvedt. 2009. *Balancing Building Blocks of a Functional ABS System*. FNI Report 7/2009. Lysaker: FNI.

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